

WHAT IS CLAIMED IS:

1. An attachment structure of an EA component for attaching the EA component to a member, wherein the EA component is attached to the member by engaging a first locking part that is integrated with the EA component with a second locking part provided in the member.

2. The attachment structure of an EA component according to claim 1, wherein the first locking part can be resiliently deformed, and when engaged with the second locking part, the first locking part is resiliently deformed and is then resiliently restored to engage with the second locking part.

3. The attachment structure of an EA component according to claim 2, wherein the second locking part is an opening.

4. The attachment structure of an EA component according to claim 3, wherein the first locking part comprises a claw part engaged with the edge of the opening.

5. The attachment structure of an EA component according to claim 4, wherein the first locking part

comprises a projection projecting from the EA component and the claw part is provided on the side face of the projection in the projecting direction.

6. The attachment structure of an EA component according to claim 5, wherein a plurality of the projections is provided along the edge of the opening.

7. The attachment structure of an EA component according to claim 5, wherein the first locking part comprises a flange and the edge of the opening is held between the flange and the claw part.

8. The attachment structure of an EA component according to claim 5, wherein a base of the first locking part is embedded in the EA component.

9. The attachment structure of an EA component according to claim 8, wherein the base of the first locking part is embedded so as not to pierce the EA component.

10. The attachment structure of an EA component according to claim 1, wherein the first locking part can be magnetically held with a die used for molding the EA component.

11. The attachment structure of an EA component according to claim 1, wherein the first locking part comprises a projection that engages with the second locking part and a surrounding wall that surrounds the rear end portion of the projection.

12. The attachment structure of an EA component according to claim 11, wherein the projection can be resiliently deformed, and when engaged with the second locking part, the projection is resiliently deformed and is then resiliently restored to engage with the second locking part.

13. The attachment structure of an EA component according to claim 12, wherein the second locking part is an opening.

14. The attachment structure of an EA component according to claim 13, wherein the projection comprises a claw part engaged with the edge of the opening.

15. The attachment structure of an EA component according to claim 14, wherein the claw part is provided on the side face of the projection in the projecting direction.

16. The attachment structure of an EA component according to claim 15, wherein a plurality of the projections is provided along the edge of the opening.

17. The attachment structure of an EA component according to claim 15, wherein the first locking part comprises a flange, the projection and the surrounding wall are disposed so as to be projected from the flange, and the edge of the opening is held between the leading end of the surrounding wall and the claw part.

18. The attachment structure of an EA component according to claim 11, wherein a base of the first locking part is embedded in the EA component.

19. The attachment structure of an EA component according to claim 18, wherein the base of the first locking part is embedded so as not to pierce the EA component.

20. The attachment structure of an EA component according to claim 11, wherein the surrounding wall has an annular shape.

21. The attachment structure of an EA component

according to claim 11, wherein the EA component comprises a foamed synthetic resin such as a rigid urethane and the foamed synthetic resin is not provided in the inside of the surrounding wall.

22. A locking piece for attaching an EA component comprising:

- a base embedded in the EA component;

- a flange provided at one end of the base;

- a plurality of projections projected from the flange, the projections being able to be resiliently deformed, and the projections being inserted in an opening for attaching the EA component;

- claw parts provided on the side face of the projections, the claw parts being able to be engaged with the edge of the opening; and

- a surrounding wall projected from the flange in the same direction as that of the projections, the surrounding wall surrounding the rear end portion of the projections.

23. The locking piece according to claim 22, wherein the claw parts of the projections are disposed at a further end of the leading end of the surrounding wall in the projecting direction.

24. The attachment structure of an EA component according to claim 11, wherein the first locking part is the locking piece according to claim 22.

25. The attachment structure of an EA component according to claim 2, wherein the first locking part comprises a tube-shaped opening in which the second locking part is inserted and a groove provided in the inner periphery of the tube-shaped opening in the circumferential direction, and the second locking part is engaged with the groove.

26. The attachment structure of an EA component according to claim 25, wherein the second locking part comprises a claw part engaging with the edge of the groove.

27. The attachment structure of an EA component according to claim 26, wherein the second locking part is a projection projecting from the member and the claw part is provided on the side face of the projection in the projecting direction.

28. The attachment structure of an EA component according to claim 27, wherein a plurality of the projections is inserted in the single tube-shaped opening.

29. The attachment structure of an EA component according to claim 27, wherein the edge of the groove is held between the member and the claw part.

30. The attachment structure of an EA component according to claim 27, wherein most of the first locking part is embedded in the EA component and only the leading end face of the first locking part is projected from the EA component.

31. The attachment structure of an EA component according to claim 30, wherein the first locking part is embedded so as not to pierce the EA component.

32. The attachment structure of an EA component according to claim 25, wherein the tube-shaped opening is a cylindrical opening.

33. The attachment structure of an EA component according to claim 25, wherein the tube-shaped opening is a rectangular tube opening.

34. The attachment structure of an EA component according to claim 33, wherein a section of the rectangular

tube opening in the direction orthogonal to the central axis of the tube is a rectangle and the groove is provided in the direction of the long sides of the rectangle.

35. The attachment structure of an EA component according to claim 34, wherein the EA component is attached to the member with a plurality of pairs of the second locking parts and the first locking parts, and

at least two pairs of the second locking parts and the first locking parts are disposed such that the directions of the long sides of the rectangle in the rectangular tube opening are orthogonal with respect to each other.

36. The attachment structure of an EA component according to claim 34, wherein the width of the claw part in the direction parallel to the groove is smaller than the width of the groove.

37. The attachment structure of an EA component according to claim 25, wherein the inlet of the tube-shaped opening has a tapered shape gradually tapered toward the inside.

38. The attachment structure of an EA component according to claim 37, wherein the end of the inlet of the



tube-shaped opening extends in the direction substantially parallel to the central axis of the tube.

39. The attachment structure of an EA component according to claim 25, wherein a part of the EA component is in contact with the member.

40. The attachment structure of an EA component according to claim 1, wherein the member is a trim of an automobile.

41. The attachment structure of an EA component according to claim 1, wherein a non-woven fabric serving as the second locking part is provided on the surface of the member, the surface to which the EA component being attached, and a planar fastener serving as the first locking part is fixed on the surface of the EA component, the planar fastener being integrated with the EA component during the molding of the EA component with foaming, and

the EA component is attached to the surface of the member by entwining the planar fastener with the non-woven fabric.

42. The attachment structure of an EA component according to claim 41, wherein the planar fastener comprises

engaging projections that are entwined with the non-woven fabric.

43. The attachment structure of an EA component according to claim 41, wherein anchors are provided on the back-side of the planar fastener and the anchors are embedded in the EA component.

44. The attachment structure of an EA component according to claim 43, wherein the anchors are embedded so as not to pierce the EA component.

45. The attachment structure of an EA component according to claim 41, wherein the EA component comprises rigid urethane foam.

46. The attachment structure of an EA component according to claim 41, wherein the non-woven fabric is bonded on the surface of the member.

47. The attachment structure of an EA component according to claim 41, wherein the surface of the member is a back-side of a roof component of an automobile.